

withstanding these, we have no blast furnace industry. On the other hand, we know that capital is conservative and timid, and we cannot hope to see it invested in blast furnaces and steel plants in Canada without a certainty that the circumstances under which it is invested will not be unfavorably changed, at least for a time sufficiently long to give a guarantee of the remuneration to which it is entitled.

It is the uncertainty that has always surrounded the question that has been a salient factor in preventing the investment of capital in the blast furnace industry in Ontario. Many students of the question are of the opinion that an additional bonus should be offered as an inducement to capitalists to embark in the business; but an equally important consideration with them is the continuance of the time during which these inducements will be continued. It will not be satisfactory to them to remain in darkness on this most important point. They must know not only how much inducement is offered, but also how long it will be continued. Unlike banking, and similar monetary transactions, where capital can be called in and quickly transferred to another country if necessary; or unlike merchandising, where goods may be disposed of and the proceeds thereof under immediate control, when capital is invested in such an enterprise as a blast furnace it will be an almost total loss unless the works can be operated vigorously and continuously for a number of years. If, then, any encouragement is offered for the establishment of such an enterprise, if a bonus is promised on the production of pig iron, it should be accompanied with a guarantee that it will be continued for a definite term of years. A consensus of opinion shows that if the Ontario Government should deem it wise to aid in the establishment of this industry, the bonus should be \$2 per ton upon the production of pig iron, and that it should be continued for the term of ten years.

STEEL RAILS.

It has heretofore been shown in these pages that if we are to have an iron making industry in Canada our tariff must be scheduled along lines which will make it possible to consume at home all the pig iron our blast furnaces would be able to produce; and in that connection we have shown the necessity of making the duty on scrap iron practically prohibitory. We will now discuss this matter from the standpoint of steel rails.

The Railway Statistics of Canada for 1892, prepared by Mr. Collingwood Schreiber, Chief Engineer of Railways and Canals, and just issued from the press, shows the following fact:

Miles of Railway completed (track laid).....	14,870
Miles of Siding.....	1,923

Total Mileage .....16,793

The rails used in the construction of our Canadian roads average in weight not less than 70 pounds per yard, and to iron this extent of mileage with 70-pound metal would require 2,068,900 net tons, which is at about the rate of 123 tons of rails per mile of road. In 1882 we had 7,530 miles of road, since which time—in ten years—we have added 7,058 miles, an average of over 700 miles per year, requiring an average of nearly 85,000 tons of rails per year for the construction of new roads.

Not one of these rails was made in Canada: but our importation of rails, and the value thereof was as follows:

	cwt.	value.
1890.....	1,781,922	\$2,204,085
1891.....	2,521,310	3,197,280
1892.....	1,654,935	1,738,661
	5,958,167	\$7,140,026

This is the equivalent of 333,657 tons of steel rails imported into Canada at an average value of \$21.30 per ton, the average annual importation being 111,220 tons, valued at \$2,380,000. Of this 111,220 tons, some 85,000 tons was appropriated to construction of new road, and the balance for repairs.

It is reasonable to suppose that for many years to come our annual construction of railroads will not be less than what it has been during the last ten years. If this should be the case; if during the next ten years we build 7,000 miles of road, the requirement for rails will be not less than 850,000 tons. The life of steel rails is estimated at about twenty years; the depreciation being at the rate of about five per cent. per annum; therefore ten years hence the renewals of rails now in use will have required over a million tons. This quantity, together with the new roads to be built during the coming ten years, will require some 1,850,000 tons, or perhaps 2,000,000 tons, or about 200,000 tons per year.

At the inauguration of the National Policy a grievous mistake was made in not placing an import duty on steel rails. If a great railway system was to be built up; if the continent was to be spanned from Halifax to Vancouver; it was a mistake not to build up at home an industry that would supply the rails for the purpose, instead of having to depend on works three thousand miles away with an intervening ocean. It might be argued that at that time the conditions were not favorable to the building up of a steel rail industry in Canada; but an answer to that is, that as far as the Canadian Pacific road was concerned, the money to build it, or much the larger portion of it, had to come out of the Dominion treasury, and that it would have been quite as well to have increased the expenditure but very slightly and have built iron furnaces and rail mills in Canada. As it is we have no rail mills and no iron industry; and every rail that is laid must of necessity be brought from abroad.

If at the time of Confederation it had been determined that Canada should have a steel rail industry; that it should be built by Government aid if necessary; and that to secure it a duty of, say \$10 per ton should be imposed upon imports of rails, and a bonus of \$5 paid on the production of rails at home, this bonus to be continued for a term of ten or fifteen years, every rail now in use in this country at this time would have been the product of Canadian mills. This would have been the result if we may judge by the course of events in this line in the United States. The manufacture of steel rails was begun in that country in 1867, in which year the production was 2,277 tons, and the value \$166 per ton. The duty was only 45 per cent. ad valorem, but in 1872, when the duty was raised to \$28 per ton, the production increased to 84,000 tons. Since then the industry has progressed wonderfully; and since the establishment of it upon a firm and reliable basis, the cost of production has been lowered to a point almost, or quite equal to the cost in Great Britain, the duty at this time being but \$12 per ton.

Under the existing policy respecting steel rails it is impossible that we shall ever have rail mills in Canada. We have shown the large demands of the country for the article and the